

*Application No. 10/519,205
Amendment dated January 28, 2008
Reply to Office Action of November 15, 2007*

IN THE SPECIFICATION:

Please enter the enclosed Substitute Specification for the originally filed English translation of the German language priority application.

Closing Lid CLOSURE COVER

BACKGROUND

This application claims the benefit of PCT Application No. PCT/DE2003/01860 which was filed on June 5, 2003 (published as WO2004/000677), which in turn claims priority of German Application No. GE 202 09 514.2 which was filed on June 19, 2002.

The invention relates to a closing-lid closure cover made of plastic material[[,]] especially adapted for tight sealing of an opening in a support plate especially (i.e. a motor vehicle body[[,]] panel). with The closure cover includes a covering element and a sealing element.

A closing-lid closure cover for tight sealing of an opening in a support plate is already known as ~~state of~~ in the art (DE 43 27 945 A1). ~~Said closing-lid~~ The aforementioned closure cover consists of a plastic covering element and a therewith connected sealing element. ~~Two components are provided, i.e.~~ The two elements comprise a core component of hard material and a shell component of a softer material, ~~which~~ The shell component encloses the core component, which can be cemented together with the support plate, at its outer edges. Such cementation may be cumbersome to perform in certain application fields, ~~so that the object of the present invention consists of developing a closing-lid~~

It is desirable to develop a closure cover of the initially named kind in such a manner ~~so that with simple~~ to simplify installation and without outside force, ~~via the closing-lid there is assurance of~~ and to ensure a tight seal of the ~~two~~ to be sealed opening in a support plate.

BRIEF DESCRIPTION

~~Said object is solved according to the invention in that~~ In one aspect of the exemplary embodiments, to be described in more detail hereinafter, the sealing element, ~~consisting of~~ comprising an elastic material, is ~~can be~~ joined via engaging elements with counter-engaging elements of the covering element, ~~consisting of~~ The covering element can include a hard component, ~~and that the~~ The sealing element ~~presents~~ can present a contact flange and, opposite same, at a distance, at least one

elastic sealing lip.

The elastic sealing element is can thus be installed, in simple fashion, in the covering element ~~consisting of a hard component~~, whereupon the entire ~~units~~ unit can be immediately employed for installation in an opening of ~~a covering element~~, for example, a support plate without the need of cementation~~[[;]]~~. ~~the~~ The elastic sealing lip, in cooperation with the contact flange, ensures perfect sealing of the support opening.

~~According to the invention, there also exists the possibility~~ In accordance with yet another aspect of the exemplary embodiments, it is to be appreciated that the engaging elements of the sealing element are can be designed as cross pieces, which are distributed over the circumference of the ~~closing lid~~ closure cover and are embeddable in openings of the covering element. Alternatively, ~~a construction form is possible~~ another arrangement can be provided in which the engaging elements of the sealing element constitute recesses, which can be locked with projections of the covering element.

~~A particularly~~ Particularly good sealing ~~possibility~~ results from ~~further refinement of the invention in that~~ with the inclusion of several sealing lips are successively arranged at the circumference of the sealing element. In one such ~~design~~ arrangement, the sealing lips can be of equal height and directed towards the contact flange. Alternatively, ~~there exists the possibility that~~ in another embodiment the sealing lips ~~have~~ can be of different heights and are facing directed (facing) away from the contact flange.

~~In further embodiment of the invention~~ In accordance with yet still another aspect of the exemplary embodiments, the covering element is ~~designed as~~ can be a hollow cylinder equipped with a partitioning wall. ~~Said~~ The hollow cylinder can ~~present~~ include in a frontal region equipped with counter-engaging-element, a flange in which can be embedded the contact flange of the sealing element. In this arrangement, the covering element can be positioned opposite the frontal region, and enclose, at least partially, the sealing element by ~~means way~~ of a limitation shoulder, ~~with attention to be paid that the~~ The limitation shoulder is can be lower than the height of the elastic sealing lip. Also, in ~~further embodiment of the invention~~, the limitation shoulder can ~~consist of~~ include

several projects distributed over the circumference of the covering element.

DRAWING DESCRIPTIONS

~~In the following, the~~ The invention is will be described in more detail ~~by means of~~
~~from~~ exemplary embodiments represented in the ~~drawing, drawings wherein:~~

~~Fig. Figure~~ 1 depicts a center section through a closing-lid closure cover
according to a first embodiment of the invention, with the lower region schematically
installed in an opening of a support plate;

~~Fig. Figure~~ 2 depicts ~~another~~ a second embodiment possibility of the invention
closure cover following installation in a support plate; and,

~~Fig. Figure~~ 3 depicts a perspective view of the closing-lid closure cover according
to ~~Fig. Figure~~ 1.

DETAILED DESCRIPTION

The closing-lid closure cover 1 represented in Fig. 1 consists of a covering
element 10 and a sealing element 15. The covering element 10 ~~is~~ can be made of a
hard component, whereas the sealing element 15 ~~consists of~~ can be an elastic plastic
material. The sealing element 15 presents engaging elements 20 which are embedded
in counter-engaging elements 25 of the covering element 10. ~~In the present~~
~~embodiment~~ accordance with the exemplary embodiments, the engaging elements 20
of the sealing element 15 are designed as cross-pieces distributed over the
circumference of the ~~closing-lid which~~ closure cover. The engaging elements 20 are
embeddable in corresponding counter-openings 25 of the covering element 10.

The covering element 10 ~~is~~ can be designed as a hollow cylinder equipped with a
partitioning wall 40. ~~Said The~~ hollow cylinder can have, on one side, a flange 22 in the
frontal region which is fitted with openings distributed over the circumference. On the
other side, the hollow cylinder is equipped with at least one limitation shoulder 44[.],
~~and said The~~ limitation shoulder 44 ~~can consist of~~ include several projections distributed
over the circumference of the covering element 1, ~~according to~~ as shown in Fig. Figs. 1
and 3.

The sealing element 15 has a contact flange 30 and, opposite same, at a

distance, several elastic sealing lips ~~36~~ 35a, 35b, 35c, 35d. ~~Said~~ The elastic sealing lips 35a-35d can have the same height H and be directed towards the contact flange 30. Although not shown, it is to be appreciated that the sealing lips can have different heights and be facing away from the contact flange.

The flange 22 of the covering element ~~4~~ 10 embeds the contact flange 30 of the sealing element ~~2~~ 15. The limitation shoulder 44 of the covering element ~~4~~ 10 limits the other region of the sealing element ~~2~~ 15 and encloses same at least in part. In this arrangement, the height of the limitation shoulder 44 or of the projections is lower than the height H of the elastic sealing lips 35a-35d.

The lower region of Fig. 1 represents the installation of the ~~invention-specific closing lid closure cover~~ in an opening 3 of the support plate 2. The support plate 2 presents a circumferential collar, which is directed towards the contact flange 30. Thus, the contact flange 30 of the elastic sealing element 15 limits the support plate 2 or the opening 3, while ~~the~~ a first sealing lip ~~36~~ 35d places itself on the outer circumference of the opening 3 of the support plate 2 and ~~the second~~ another sealing lip 35c is positioned on the upper surface of the support plate 2. Thus, there is assurance of ~~perfect~~ closure of an opening 3 of support plate 2.

With reference now to Figure 2, a second embodiment of a closure cover is there illustrated. Like components are identified by like numerals with a single printed suffix ('), and vnew components are identified by new numerals. In the this embodiment ~~according to Fig. 2~~, the support plate ~~2~~ 102 presents a circumferential collar, which is facing away from the contact flange ~~30~~ 30' of the sealing element ~~15~~ 15'. Here, the four successively positioned sealing lips ~~36~~ 35a', 35b', 35c', 35d' of the sealing element ~~15~~ 15' come into play, with the center lips 35b', 35c' sealing opening ~~2~~ 103 of the support plate ~~3~~ 102 and the outer sealing lips 35a', 35d' serving as limitation elements.

~~The invention guarantees in exemplary embodiments provide by way of a simple fashion that it is possible closure cover, without any gluing procedure, to achieve quickly and effectively a~~ effective and secure closing of an opening 3, 103 in a support plate 2, 102, with said the support plate having highly different configurations.

The invention has been described above with reference to the preferred embodiments. Obviously, modifications and alterations will occur to others upon a

reading and understanding of the specification.

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